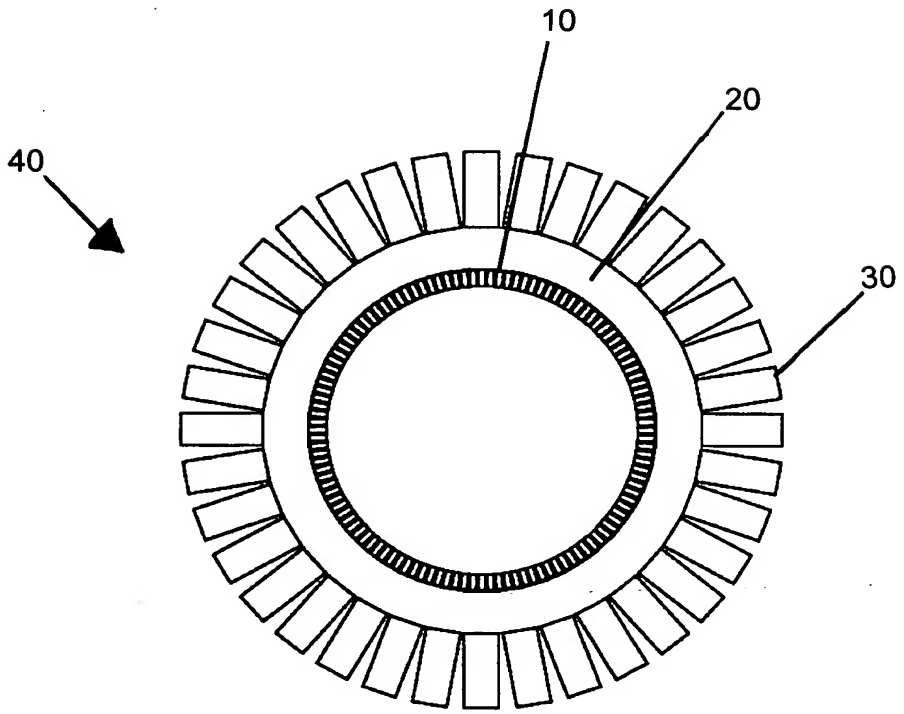
FIGURE 1



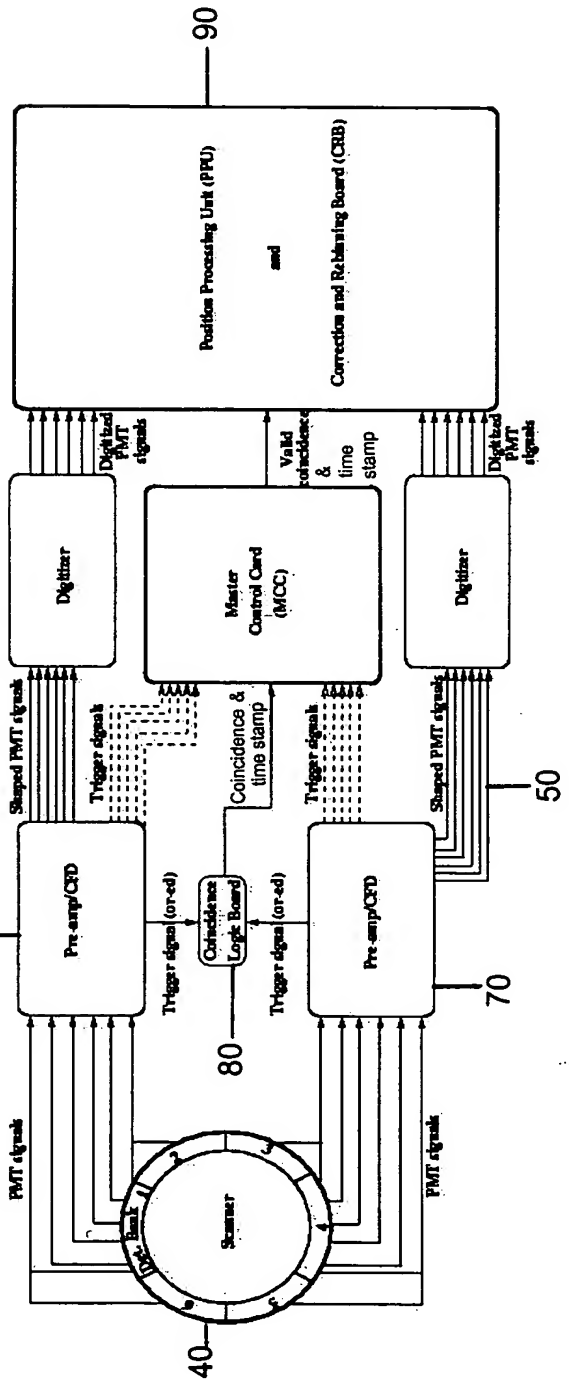
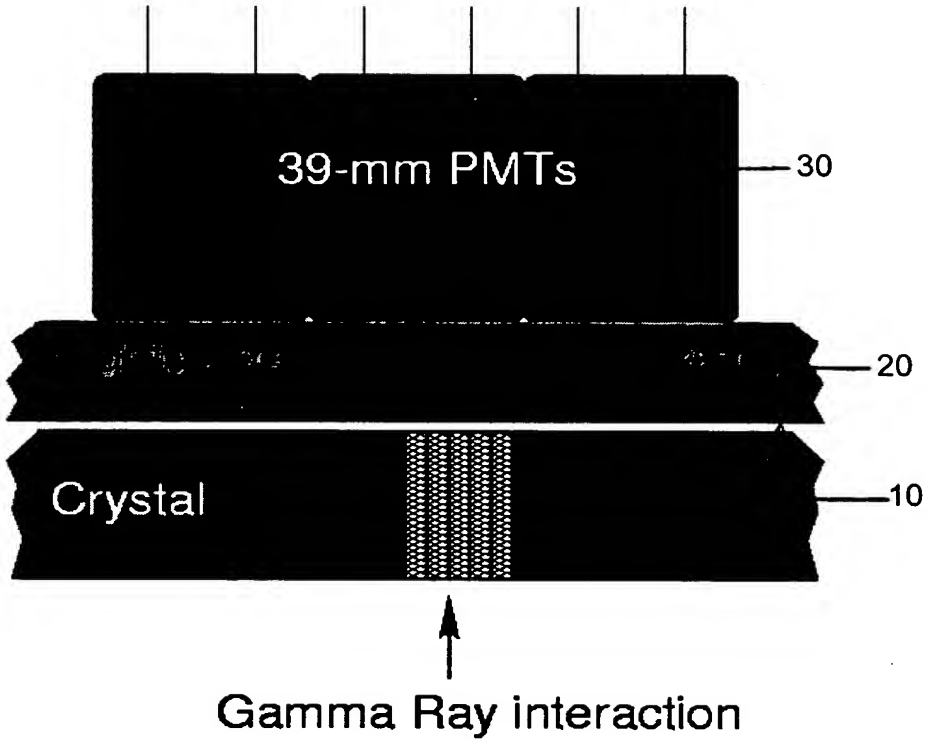

90
Position Processing Unit (PPU)
and
Correction and Rebinning Board (CRB)
Digitized PMT signals
Valid coincidence & time stamp
Digitized PMT signals
Digitizer
Master Control Card (MCC)
Digitizer
Shaped PMT signals
Trigger signals
Coincidence & time stamp
Trigger signals
Shaped PMT signals
50
60
Pre-amp/CFD
Trigger signal (or-ed)
Coincidence Logic Board
Trigger signal (or-ed)
Pre-amp/CFD
70
80
PMT signals
Scanner
PMT signals
40

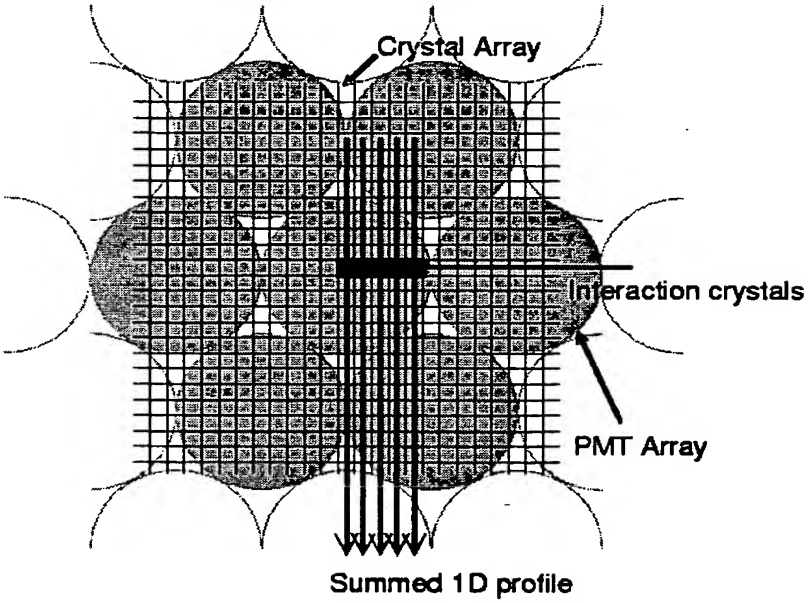
FIGURE 2

FIGURE 3



BEST AVAILABLE COPY

FIGURE 4



BEST AVAILABLE COPY

FIGURE 5

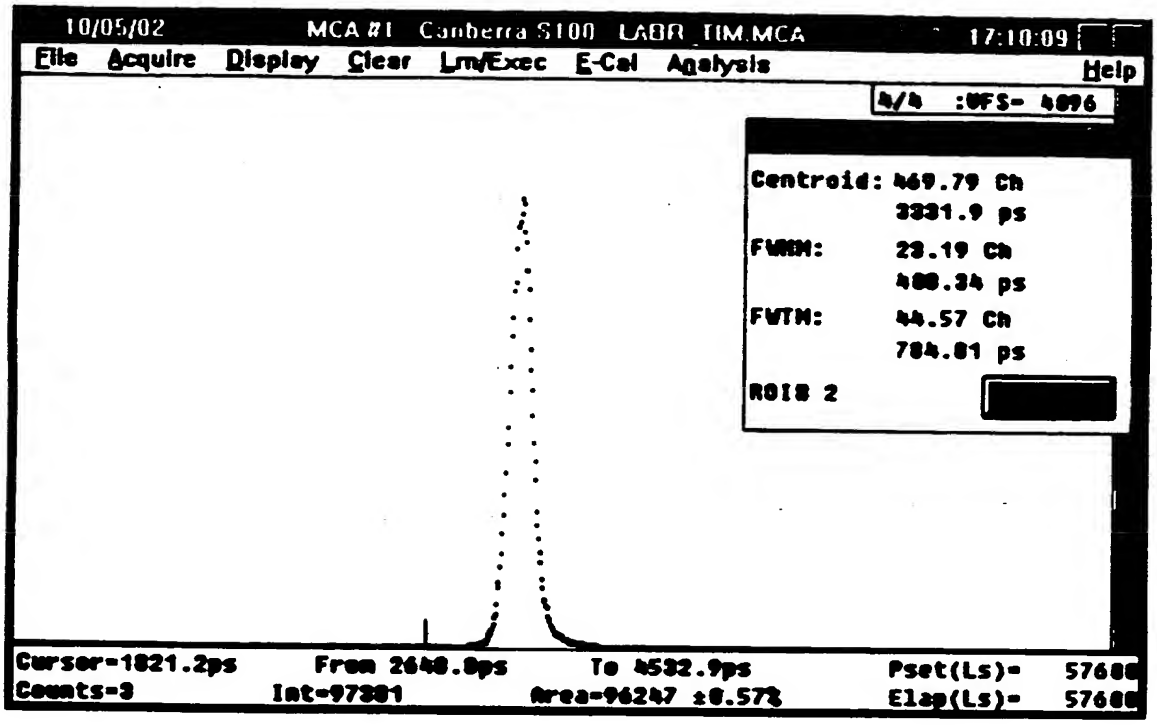
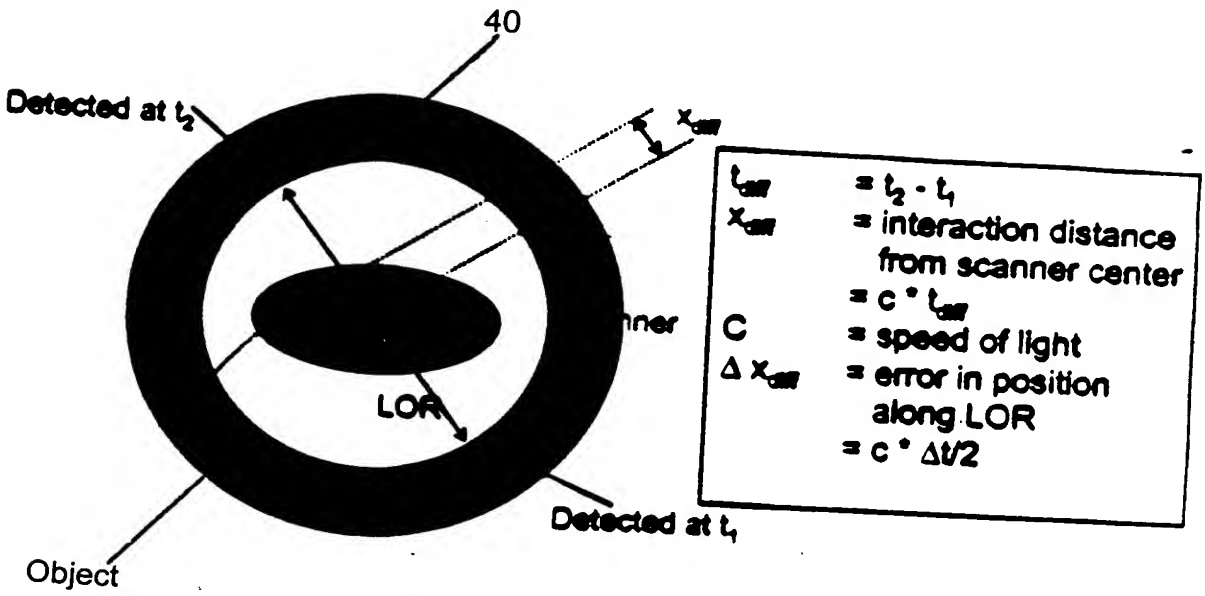
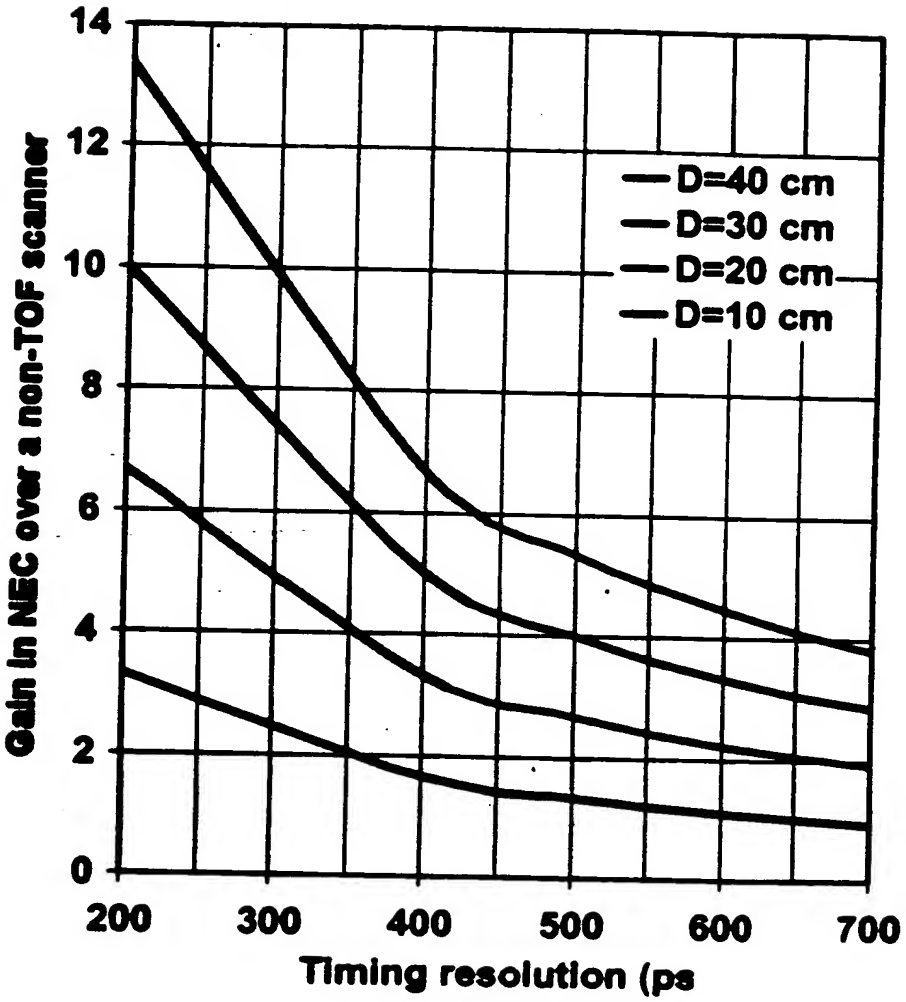

10/05/02
MCA #1 Canberra S100 LABR_TIM.MCA
17:10:09
File Acquire Display Clear Lm/Exec E-Cal Analysis Help
4/4 :UFS- 4096
Centroid: 469.79 Ch
3331.9 ps
FWHM: 28.19 Ch
488.34 ps
FWTM: 44.57 Ch
784.81 ps
ROIS 2
Cursor=1821.2ps From 2648.8ps To 4532.9ps Pset(Ls)= 5768
Counts=3 Int=97381 Area=96247 ±0.57% Elap(Ls)= 5768

FIGURE 6



BEST AVAILABLE COPY

FIGURE 7


14
12
10
8
6
4
2
0
200
300
400
500
600
700
Gain in NEC over a non-TOF scanner
Timing resolution (ps
D=40 cm
D=30 cm
D=20 cm
D=10 cm